4 March 1986

MEMORANDUM FOR: Director, Foreign Broadcast Information Service

STAT FROM: [redacted]
Chief, Engineering Support Group, FBIS

SUBJECT: Network Control Proposals from OTI & Comsat

1. Attached please note the Network Control proposals from OTI and Comsat. I would like to offer the following objective comments on this office dilemma:

a. Both companies, based on past experiences and existing contractual arrangements, are operationally and technically capable of performing network control.

b. The task of network control is very important to FBIS, but to these contractors it is a small, unchallenging job.

c. OTI has an advantage over Comsat vis-a-vis the cost of their proposal in that OTI will have personnel on the job and an operational/technical site (Quantico) available to perform network control as part of their existing contract. Comsat on the other hand must propose increased personnel and they have chosen to charge you for a percentage of their existing satellite control facility. Comsat, due to other factors such as additional communication cost, is clearly disadvantaged from a cost standpoint compared to OTI. I also conclude that Comsat is a bit greedy and if they really wanted the job they could absorb most of their proposed cost.

d. The operational and technical common sense logic of having network control at the conus earth terminal is very strong in my view. I offer that this logic is valid based on my 20 years with OC and seeing a very solid, efficient and effective worldwide network control managed from [redacted] OC for example does not turn to DCA, as operators of DSCS, for SKYLINK network control. (This is a direct analogy to the proposed Comsat/FBIS relationship.) STAT

e. In January 1985 a BTI letter to OTI indicated they would work with OTI on the transponder lease and to provide the necessary FBIS Internet service. A late entry letter by BTI stating that they can not or will not now work with OTI would receive close scrutiny by any contracting officer.

SUBJECT: Network Control Proposals from OTI & Comsat

f. OTI and Comsat were asked to compete for the Network Control service. OTI is technically qualified and was the low bidder. If the job is given to Comsat I would expect legal action by OTI.

2. I believe a meeting with OPs, ESG and D/FBIS is needed to resolve this issue. While we do have time to study this issue, Internet planning and contractual activities continue. I also believe Ops should weigh in as they must live with the decision made.

STAT

Attachments:
As stated

SUBJECT: Network Control Proposals from OTI & Comsat

STAT DDS&T/FBIS/C/ESG:ml [redacted] 3Mar86)

Distribution:
Orig - Addressee
1 - C/Ops
1 - C/FED/ESG/FBIS
1 - CO/ESG/FBIS

**ROUTING AND TRANSMITTAL SLIP**

**Date** 4 March 1986

| TO: (Name, office symbol, room number, building, Agency/Post) | Initials | Date |
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| | As Requested | | For Correction | | Prepare Reply |
| | Circulate | | For Your Information | | See Me |
| | Comment | | Investigate | | Signature |
| | Coordination | | Justify | | |

**REMARKS**

Based on these rather brief submissions, we in Ops Group see very little difference between the service offered by COMSAT and OTI for Network Control The most obvious difference of course is that the recurring costs for COMSAT service are four times that of OTI. From our non-technical perch, it seems from these proposals that OTI also would be more open to input from FBIS on what we want from the system. In direct contrast, the COMSAT submission seems to indicate FBIS would have to adapt to COMSAT's SOP. It also seems to us that more information is needed from both companies. From a management perspective, I'd rather have OTI in view of OTI's existing contract with us. That fact, plus the cost difference, makes OTI my choice.

**DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions**

| FROM: (Name, org. symbol, Agency/Post) | Room No.—Bldg. |
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| C/Ops | Phone No. |

5041-102 * U.S.G.P.O.: 1983-421-529/320

**OPTIONAL FORM 41 (Rev. 7-76)**
Prescribed by GSA
FPMR (41 CFR) 101-11.206

[redacted]

# NETWORK CONTROL MANAGEMENT

FOR

FBIS INTERNET SYSTEM

SUBMITTED BY

COMSAT INTERNATIONAL COMMUNICATIONS, INC.

February 6, 1986

COMSAT International will provide Network Control Management support utilizing its Washington, D.C., Operations Center at L'Enfant Plaza on a shared basis providing network management services of the USA-UK-Panama network on a priority equal to the priority afforded our own network services.

This Operations Center will be manned around the clock, 365 days a year, with COMSAT International personnel trained and skilled in the management of COMSAT International's vast and complex satellite earth station communications network. They deal continually with the INTELSAT Network Operations in the scheduling of new services, transition of services and satellites, network fault isolation and correction and restoral of services via alternate means. The management of the FBIS USA-UK-Panama network can be added with a minimum change of operating procedures and assignments and, by incorporating with an existing COMSAT International operating facility, affords the benefits of existing operating procedures and disciplines necessary for the management of the FBIS network.

In the performance of network control management services for FBIS on the USA-UK-Panama network, COMSAT International will provide the following types of services around the clock, 365 days a year.

COST BASED ON 10 hrs/day

a) Interface with the INTERNET Operations Center for the coordination of transmission schedules and plans, reporting of network status and performance and the rapid isolation and clearance of network service problems.

b) Coordination of network activities within the USA-UK-Panama station network including the dissemination of transmission and operating event plans and schedules, fault isolation assistance and service restoral activities.

c) Status monitoring of the network stations, including monitoring of hazardous conditions, equipment operating status and service outages. Any event that could jeopardize the network services will be immediately brought to the attention of the appropriate operating unit of FBIS in accord with operating procedures mutually developed.

d) Interface with the COMSAT Space Communications Division and/or INTELSAT Operations Center regarding space segment performance, transition activities or other activity involving space segment operations.

should be p/o space segment lead

e) Coordination of maintenance schedules for earth stations and terrestrial facilities to minimize disruption of service and best ensure that planned maintenance periods are scheduled to have the least impact on network activities and service priorities.

f) Provide a monthly report of major network activities including a summary of performance problems and network availability.

g) Develop jointly with FBIS specific reporting and escalation procedures for the dissemination and reporting of routine and critical information to FBIS operating entities within the scope of this proposal.

h) COMSAT International will require access to the Order Wire Network for the provision of Network Control Management support and will provide a leased line to the FBIS facility in Reston for access.

## USA-UK-PANAMA NETWORK CONTROL MANAGEMENT PROPOSAL

## PRICE PROPOSAL

This Proposal utilizes existing COMSAT Operations Center staff and facilities to provide network control management support.

| | ANNUAL |
|---|---|
| Manpower, 10 hrs/day, 3650 hrs/yr, | |
| COC staff | $127,020 |
| Central Office staff support, one | |
| man-month annually | $ 7,847 |
| Operating Expenses | |
| Leased Lines Washington/Reston | $ 1,200 |
| Teletype rental | 1,000 |
| Telephone costs | 6,000 |
| Operating supplies | 1,000 |
| Miscellaneous expenses | 2,000 |
| Shared COC facility cost (estimate | |
| 15% of COC space allocation) | $ 11,677 |
| Sub total | 157,744 |
| Fee (15%) | $ 23,662 |
| Total | $181,400 |

24 hrs/day REQ'D

Cost of order wire equipment/termination to be included as part of other proposal to provide network order wire facilities. However, if it is not provided, our telephone/teletype costs would increase substantially.

?

# REVISED PROPOSAL FOR FBIS GLOBAL NETWORK MANAGEMENT AND CONTROL

OTI is pleased to submit this unsolicited proposal for serving in the role of manager/controller/coordinator for the FBIS Global Network. OTI is fully qualified to assume the additional responsibilities because of its experience in managing similar international satellite networks between the U.S. and Europe, Canada and South America. Satellite Transmission Systems (STS), OTI's subcontractor, has also designed and implemented network control systems for COMSAT, ATT and other carriers. OTI has correspondence agreements with PTTs of major European countries, Canada and Mexico. In addition, Intercomsa of Panama is willing to work with OTI in any role designated by FBIS.

OTI ALSO AGREES

This proposal also includes 3 man-months of effort to attend the meetings set-up by FBIS to develop procedures for network, coordination and scheduling.

Moreover, OTI will be managing and operating the U.S. earth station which will serve as a master station in the FBIS global

network for dynamic assignment of space segment capacity between various network nodes. OTI personnel will be interfacing directly with FBIS headquarters in Rosslyn, Virginia to receive and execute commands regarding the status of video and other audio carriers.

Therefore, the proposed role of network manager/controller/coordinator would simply be an extension of OTI's current responsibilities as an earth station manager and operator. By selecting OTI, the key benefits to FBIS will be single vendor interface, lower recurring costs and more effective operational control.

OTI will perform the following tasks in its role as network manager, controller and coordinator. These functions are categorized as follows:

- Procedures
- Coordination/Scheduling
- Interface with Comsat/Intelsat for Space Segment Portion

o Procedures

Under FBIS guidance and in cooperation with COMSAT and appropriate foreign PTTs, OTI will participate in meetings designed to develop technical, operational and administrative procedures to acccomplish the following:

- Network reconfiguration in accordance with instructions received from FBIS headquarters;
- Set-up and use of coordination channel in shared mode;
- Command execution sequence to change carrier on/off and transmit/receive status at different earth stations;
- Trouble-shooting and escalation procedures with centralized reporting to OTI;
- Circuit outage/Restoration procedures.

OTI will need to visit Panama and the United Kingdom to agree on implementation procedures. OTI estimates 3 man-weeks of effort in agreeing to procedures developed under FBIS guidance with foreign PTTs. OTI will attend all meetings arranged by FBIS for this purpose.

o Coordination/Scheduling

OTI will coordinate and schedule information gathering and distribution in the FBIS satellite network as instructed from the FBIS Command Center in Rosslyn, Virginia. All network coordination will be achieved through the use of the orderwire channel available at all FBIS earth stations. A modem will be used to enable OTI to use the 4KHz orderwire circuit for voice and telex service simultaneously. OTI assumes each foreign earth station will be equipped with a telex machine to communicate commands with the U.S. station.

The FBIS headquarters in Rosslyn, Virginia will be connected to the Quantico earth station via a microwave link order wire circuit. There will be a telex machine at each site to enter, transmit and receive all commands and instructions relayed between these two sites. Only authorized personnel will be able to issue instructions to the earth station operator by using a valid password.

Once the Quantico earth station operator receives the instructions, he will communicate them to corresponding foreign earth station operators via telex. Each of the foreign earth stations will acknowledge the message and agree to effect

the required changes at the appropriate time. After this exchange, the Quantico earth station operator will confirm the planned execution of the commands issued by FBIS.

o Interface With COMSAT/INTELSAT

OTI will serve as the main interface point with COMSAT on matters and problems related to the space segment performance. Such an interaction will be necessary during network trouble-shooting and SSOG line-up procedure. OTI may be able to interface directly with INTELSAT for some of the system tests. In all cases, OTI will interface with COMSAT as per procedure set forth by FBIS.

OTI is currently working with COMSAT/INTELSAT on space segment related issues in its own IBS network services.

## PRICE PROPOSAL

OTI will perform the tasks outlined above for a non-recurring cost of $51,600 and recurring cost of $40K per year. The non-recurring charges include efforts for "Coordinating Procedures" for operational scheduling, testing, maintenance, hardware procurement, documentation (8 copies), travel, engineering, and the program management effort establishing the procedures and implementing the coordination network. The recurring charge of $40,000 will be subject to an annual review by OTI and FBIS.

STAT

Date

**ROUTING AND TRANSMITTAL SLIP**

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| As Requested | For Correction | Prepare Reply |
| Circulate | For Your Information | See Me |
| Comment | Investigate | Signature |
| Coordination | Justify | |

REMARKS

Bob
Note that the letter
was signed by someone
for S. Drennan which
may be her assistant and
the one that accompanied her
here for the COMSAT mtgs last week.

STAT

DO NOT use this form as a RECORD of approvals, concurrences, di
clearances, and similar actions

| FROM: (Name, org. symbol, Agency/Post) | Room No.—Bldg. |
|---|---|
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5041-102

OPTIONAL FORM 41 (Rev. 7-76)
Prescribed by GSA
FPMR (41 CFR) 101-11.206

☆ GPO : 1983 O - 381-529 (301)

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Your Reference

Our Reference IBl.3

Date 22 January 1985

Mr K Paul Singh
President
Overseas Telecommunications Inc
1776 East Jefferson St, Suite 316S
Rockville, Maryland 20852
USA

Dear Mr Singh

FOREIGN BROADCASTING INFORMATION SERVICE

You wrote to Jeremy Simons on January 9th 1985 about the FBIS's RFP for the leasing of a global beam transponder for television service. I am replying as the person responsible for leased broadcasting services.

In view of the requirement for transmit capability from the UK, BTI would not be prepared to permit customer provision, ownership or operation of earth station equipment. In these circumstances, it is probable that the BTI tariff would be composite (ie including both space segment and terrestrial facilities). However, since FBIS's statement of work specifically excludes earth segment charges, we would give the following as an indication of our space segment charges (in $ thousands per year), based on the space segment lease periods offered by Intelsat:

| Category of Service | Lease Duration 2 years | 5 years | 7 years |
|---|---|---|---|
| Non-preemptible, fully protected | 1319 | 1150 | 1073 |
| Non-preemptible, unprotected | 824 | 719 | 671 |
| Premptible, unprotected | 659 | 575 | 537 |

The above is based on a division of the Intelsat space segment charges one-third each between the UK, the USA and Panama. You should note that non-preemptible, fully protected service is provided on primary and major path satellites, while non-preemptible unprotected and preemptible services are provided on satellites other than primary and major path.

British
TELECOM
International

To obtain leased space segment from Intelsat, OTI will have to approach an international carrier, who would lease the capacity and further rent it to OTI. I would not expect that OTI and BTI would need to meet more than twice to complete the process of setting up the lease, and it might not be necessary to meet face-to-face at all. Any administrative and technical costs incurred by BTI in negotiating a lease agreement would be charged as part of the composite tariff referred to above.

FBIS express an interest in taking voice grade channels and coordination circuits. These could not be provided in the same transponder, but BTI will be happy to quote its charges for these upon provision of fuller details of the requirement. As an indication, BTI's standard tariff for an alternate voice and data (AVD) M1020 circuit between the UK and the USA is £24,600pa. For a 48KHz group the tariff is £240,000pa. For a circuit between the UK and Panama transitting the USA, the charge would be £30,600pa, and £300,000pa for a 48KHz group. A 4-wire coordination circuit UK to USA would cost £24,000pa.

Once space segment is reserved with Intelsat, a reservation fee is payable. In BTI's case, we would charge one months' space segement cost, based on the figures quoted above. You may also wish to make FBIS aware that since the service requirement is in C band, the timescale for provision of a suitable terminal could be extended, possibly up to a year from the date of a firm order. In addition, without further details of FBIS's service requirement and the location of any customer termination points, it is difficult to be specific about suitable sites for earth terminal equipment.

All tariffs quoted herein are exclusive of value added tax.

Yours sincerely

Clive Smith

pp MRS S D DRENNAN

MESSAGE # 29
RCV LN 1

1421 01/21
DCC GTWN 64510

2666 INTCOMSA PG



COMSA007

JANUARY 21, 1985

OVERSEAS TELECOMMUNICATIONS INC.

ATTN: MR. K. PAUL SINGH
PRESIDENT

SUBJECT: FBIS RFQ

RE: YOUR TELEX 19 JANUARY 1985

PLEASE BE ADVISED WE DO NOT HAVE A COPY OF THE RFQ FROM FBIS AND, THEREFORE, OUR RESPONSE IS BASED ON INFORMATION CONTAINED IN YOUR MESSAGE. IN CONSIDERATION OF THE FOREGOING WE COMMENT AS FOLLOWS:

1. WE PRESUME YOUR REFERENCE TO A ''LEASED TRANSPONDER'' MEANS A 36MHZ TRANSPONDER.

2. INTELSAT AGREEMENTS NOW IN FORCE DO NOT PROVIDE FOR DIRECT ACCESS TO THE INTELSAT SPACE SEGMENT BY OTHER THAN INTELSAT SIGNATORIES.

3. AS THE SIGNATORY FOR PANAMA WE HAVE NOT BEEN CONTACTED, NOR DO WE AGREE, TO PERMIT THE CONSTRUCTON OR USE OF ANY FACILITY ACCESSING THE INTELSAT SPACE SEGMENT WHICH IS NOT OWNED AND CONTROLLED BY OURSELVES.

ASSUMING THE FOREGOING COMMENTS ARE FULLY CONSIDERED IN YOUR RESPONSE TO FBIS, OUR RATE WOULD BE $15,000 U.S. PER MONTH PLUS THE ALLOCATED SPACE SEGMENT CHARGES.

CONDITIONS OF SERVICE:

1. SINCE INTERCOMSA HAS NO COMMERCIAL RELATIONSHIP WITH OTI, VARIOUS COMMERCIAL CONDITIONS MUST BE SATISFIED PRIOR TO ANY SERVICE COMMITMENT FROM INTERCOMSA.

2. PRESUMING COMMERCIAL CONDITIONS ARE SATISFACTORY, OTI WILL BE INTERCOMSA'S CUSTOMER AND ALL CORRESPONDENCE, COORDINATION AND AGREEMENTS WILL BE BETWEEN INTERCOMSA AND OTI.

3. THE FACILITIES PROVIDED I.E. THE 36MHZ TRANSPONDER WILL BE USED SOLELY FOR THE PURPOSES OF FBIS AND WILL NOT BE SHARED, LEASED, RENTED OR OTHERWISE MADE AVAILABLE FOR USED BY ANY OTHER ENTITY, AGENCY OR PARTY.

4. THE SERVICES TO BE DERIVED FROM THE 36MHZ TRANSPONDER SHALL BE EXCLUSIVELY VIDEO AND ASSOCIATED AUDIO AND SHALL NOT BE INTERCONNECTED WITH PUBLIC OR PRIVATE NETWORKS, EXCEPT THOSE OPERATED BY FBIS, ORGINATING AND TERMINATING IN FBIS FACILITIES.

5. OTI SHALL EMBODY IN ITS FINAL AGREEMENTS WITH FBIS THE ABOVE CONDITIONS OF SERVICE AND/OR OTHERS WHICH MAY BE MUTUALLY AGREED.

FRANK P. SANTOMENNO
GENERAL MANAGER AND
EXECUTIVE PRESIDENT
INTERCOMS, S. A.

DCC GTWN 64510
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VIA WUI A*
DURATION 374 SECS LISTED 20:28 GMT 01/21/84